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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/714,295 | 11/14/2003 | Hieyoung W. Oh | 14104 | 2127 |

7590 11/03/2005
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EXAMINER

PATEL, DHARTI HARIDAS

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2836 | |

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/714,295 | OH ET AL. | |
| | Examiner | Art Unit | |
| | Dharti H. Patel | 2836 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-10, 12, 13, 16-19, 22 and 24 is/are rejected.
- 7) ☒ Claim(s) 4-7, 11, 14, 15, 20, 21 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/14/03, 8/16/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to as indefinite as it is unclear how the "apparatus is disposed with respect to said component" as the component is part of the apparatus. Furthermore there is not antecedent basis for "said component".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 9-10, 12-13, 16-19, 22 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Fox et al., Patent No. 5,010,441. With respect to claim 1, Fox et al. teaches a moving component, shaft 75, upon which static electrical charges build during operation; a static charge neutralizing assembly 73 associated with said moving component 75, said neutralizing assembly 73 including a conductive carrier strip; and a plurality of electrically conductive filaments 108 attached to said carrier strip, said filaments 108 having diameters sufficiently small to induce ionization in the presence of an electrical field generated by static charges on said moving component 75, said filaments 108 disposed on said carrier strip and extending beyond an edge of said carrier strip and having distal ends remote from said carrier strip; a component that holds

filaments with distal tips adjacent but in spaced relation to the moving component, to thereby cause ionization between the filaments and the moving component as disclosed in Col. 6, lines 12-22, lines 28-29, Fig. 2 and Fig. 3

With respect to claim 2, Fox et al. teaches the moving component being a roll.

With respect to claim 3, Fox et al. teaches distal tips are disposed in spaced relation to an outer surface of said roll as disclosed in Fig. 2 and Fig. 3.

With respect to claims 9 and 10, Fox et al. teaches that the moving component 75 being a motor shaft as disclosed in Col. 6, lines 14-16 and Fig. 2.

With respect to claim 12, Fox et al. teaches a carrier strip that is annular in shape and surrounding said shaft 75, and said filaments 108 extending inwardly beyond an inner edge of said annular carrier strip as disclosed in Fig. 2 and Fig. 3.

With respect to claim 13, Fox et al. teaches that the filaments 108 are arranged in bundles as disclosed in Col. 6, lines 23-25 and Fig. 3.

With respect to claim 16, Fox et al. teaches that the filaments 108 are arranged in bundles as disclosed in Col. 6, lines 23-25 and Fig. 3.

With respect to claim 17, Fox et al. teaches an electric motor 112 comprising a motor shaft 75 rotated during operation of said motor and accumulating static charges thereon during said operation; a static charge neutralizing assembly 73 associated with said shaft 75, said neutralizing assembly 73 including: a conductive carrier strip; a plurality of electrically

conductive filaments 108 electrically connected to said conductive carrier strip, said filaments 108 being sufficiently small to induce ionization in the presence of an electrical field from static charges on said shaft 75, said filaments projecting beyond an edge of said carrier strip and having distal tips disposed adjacent but in spaced relation to said shaft as disclosed in Col. 6, lines 12-22, lines 28-29, Fig. 2 and Fig. 3.

With respect to claim 18, Fox et al. teaches a carrier strip that is annular shaped and surrounding said shaft 75 as disclosed in Fig. 2.

With respect to claim 19, Fox et al. teaches that the filaments 108 are arranged in bundles projecting inwardly from said annular shaped carrier strip as disclosed in Fig. 2.

With respect to claim 22, Fox et al. teaches that the filaments 108 are arranged in bundles projecting inwardly from said carrier strip as disclosed in Fig. 2 and Fig. 3.

With respect to claim 24, Fox et al. teaches a method for neutralizing static charge on a moving component, motor shaft 75, of an apparatus, said method comprising steps of: providing an arrangement of filaments 108 having diameters sufficiently small to induce ionization in the presence of an electrical field created by static charges on the component; positioning distal ends of the filaments 108 near but spaced from a surface of the component 75; operating the apparatus including moving the surface of the component 75 past the distal tips of the filaments 108 adjacent thereto; and inducing ionization from the static

electric charge on the surface of the component along the filament distal tips as disclosed in Col. 6, lines 12-22, lines 28-29, Fig. 2 and Fig. 3.

3. This rejection of claim 1 is different and separate from the above rejection. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Fox et al., Patent No., 5,010,441. With respect to claim 1, Fox et al. teaches a moving component, plate 77, upon which static electrical charges build during operation; a static charge neutralizing assembly 73 associated with said moving component 77, said neutralizing assembly 73 including a conductive carrier strip; and a plurality of electrically conductive filaments 108 attached to said carrier strip, said filaments 108 having diameters sufficiently small to induce ionization in the presence of an electrical field generated by static charges on said moving component 77, said filaments 108 disposed on said carrier strip and extending beyond an edge of said carrier strip and having distal ends remote from said carrier strip; and a component that holds filaments with distal tips adjacent but in spaced relation to the moving component, to thereby cause ionization between the filaments and the moving component as disclosed in Col. 6, lines 12-22, lines 28-29, Fig. 2 and Fig. 3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 8 is rejected based on the second rejection of claim 1 mentioned above in "2". With respect to claim 8, Fox et al. teaches a plate 77 as a moving component which is a conveyor. It would have been obvious to one of ordinary skill in the art at the time the invention was made to put the slats on a belt of a conveyor for more uniform movement of the belt.

Allowable Subject Matter

5. Claims 4-7, 11, 14-15, 20-21 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

The following is an examiner's statement of reasons for indicating allowance of claim 4: Fox et al. teaches a moving component being a roll but does not disclose a roll having a shaft extending therethrough, and said apparatus having a mounting fixture attached to said shaft. This is not anticipated or rendered obvious by the prior art of record.

The following is an examiner's statement of reasons for indicating allowance of claim 11: Fox et al. teaches a carrier strip including first 110 and second 114 outer layers on opposite sides, but does not disclose each outer layer having a shoulder adjacent said carrier strip and having a portion thereof projecting beyond said edge of said carrier strip adjacent but spaced from said distal tips of said filaments. This is not anticipated or rendered obvious by the prior art of record.

The following is an examiner's statement of reasons for indicating allowance of claim 14: Fox et al. teaches a carrier strip including first 110 and second 114 outer layers on opposite sides, but does not disclose each outer layer having a shoulder adjacent said carrier strip and having a portion thereof projecting inwardly adjacent but spaced from said distal tips of said filaments. This is not anticipated or rendered obvious by the prior art of record.

The following is an examiner's statement of reasons for indicating allowance of claim 20 and 23: Fox et al. teaches a carrier strip including first 110 and second 114 outer layers on opposite sides, but does not disclose each outer layer having a shoulder adjacent said carrier strip and having a portion thereof projecting inwardly beyond said edge of said carrier strip adjacent but spaced from said distal tips of said filaments. This is not anticipated or rendered obvious by the prior art of record.

6. ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dharti H. Patel whose telephone number is 571-272-8659. The examiner can normally be reached on 8:30am - 5pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2800, Ext. 36. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2836

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DHP
10/20/2005



PHUONG T. VU
PRIMARY EXAMINER